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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,259	01/27/2005	Akira Kuramori	OGW-0355	8277
7590 10/14/2008				
Patrick G. Burns Greer, Burns & Crain, Ltd. Suite 2500 300 South Wacker Drive Chicago, IL 60606			EXAMINER BELLINGER, JASON R	
			ART UNIT 3617	PAPER NUMBER
			MAIL DATE 10/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/523,259

Applicant(s)

KURAMORI, AKIRA

Examiner

Jason R. Bellinger

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE-US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiba (JP 02071084). Shiba shows a front wheel having greater strength and weight than a rear wheel. While not specifically stated, it is well known that a front wheel having greater strength than a rear wheel has greater rigidity as well. The wheels may be a disk wheel having a disk and rim.

Shiba does not disclose the exact ratio of the difference in rigidity between the front and rear wheels. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to give the front wheel of Shiba a rigidity 10-60% greater than that of the rear wheel, dependent upon the handling characteristics (i.e. cornering, braking, etc.) and load bearing capabilities required.

Response to Amendment

2. The declaration under 37 CFR 1.132 filed 13 August 2008 is insufficient to overcome the rejection of claim 17 based upon Shiba (JP 02071084) as set forth in the last Office action because: (1) The tests for steering stability and riding comfort were not conducted on a comparable vehicle as the test for under-steer. A 2500cc vehicle was used for the steering and riding comfort tests, while a 2000cc vehicle was used for

the under-steer test. The difference in engine size between the test vehicles would affect the horsepower and torque values, weight, size, and other characteristics of each vehicle, thus making it unclear whether the wheel sets would function in the same manner on these disparate vehicles.

(2) The evaluations for steering stability and riding comfort are clearly subjective tests. The Applicant even states that these tests were performed by a "feeling test" by the test driver. No concrete evidence was used to test for steering stability and riding comfort besides a person's opinion. Furthermore, it is unclear whether these subjective results were gathered from a single test driver or a plurality of drivers.

(3) Furthermore, the test results do not show any unexpected or superior results. The wheels with the claimed rigidity ratio of 10-60% do not show a marked increase in the subjective steering stability and riding comfort results when compared to the datum or reference wheel set 12; or in the understeer test results. Therefore, these tests results seem to prove that the claimed invention is not superior or unexpected over the datum/reference wheel set 12. Furthermore, the results seem to prove that the wheel set of Shiba would perform at least the same as the claimed invention.

Therefore, the declaration fails to prove that the claimed wheel set is non-obvious over the wheel set of Shiba.

Response to Arguments

3. Applicant's arguments filed 1 February 2008 have been fully considered but they are not persuasive.

a. The Applicant argues that Shiba does not read on the claims, given the fact that the wheels disclosed in the Shiba reference is used in front-wheel drive vehicles, while the claimed invention is for use in rear-wheel drive vehicles. The Applicant then argues that the limitation of the vehicle being rear-wheel drive is not an intended use for the wheel set, given the fact that the claims are directed to a vehicle and not just the wheel set. However, it should be noted that the claims only set forth "a vehicle" in the preamble, and then the statement "wherein the vehicle is a rear-wheel drive vehicle". The remainder of the claim limitations is drawn to the structure of the wheel set. The claims lack any additional physical structure for the drive system or the vehicle itself, and thus it is clear that the important feature of the invention is the wheel set, and not the overall vehicle.

Therefore, the type of drive system on the vehicle is still considered to be an intended use, which must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, it then meets the claim. In this case, the wheel set disclosed in Shiba is capable of performing the same function as the claimed wheel set, regardless of whether located on a FWD or RWD vehicle.

b. The Applicant further argues that the Shiba reference lacks any teaching of the points of the present invention, and completely lacks any disclosure of the technical concept of the claimed invention. However, it should be noted that *KSR International Co. v. Teleflex Inc.* 550 U.S. ___, 82 USPQ2d 1385 (April 30, 2007)

foreclosed the need for a reference to specify a teaching or disclosure directly pertaining to the claimed invention. In this case, simple substitution of one known element for another would obtain predictable results.

Both the claimed invention and Shiba disclose wheel sets having different features between the front and rear wheels. Shiba discloses front wheels having greater strength and weight than the rear wheels. The claimed invention discloses front wheels with greater rigidity than the rear wheels. One of ordinary skill in the art at the time of the invention would have realized that a front wheel having greater strength and weight than a rear wheel would have greater rigidity as well. Shiba states that this arrangement improves the handling and reduces the weight of a FWD vehicle. The claimed invention utilizes the same concept on a RWD vehicle. One of ordinary skill in the art at the time of the invention would have found it obvious that substituting a RWD vehicle for a FWD (i.e. placing the wheel set of Shiba on a RWD vehicle instead of a FWD vehicle) would yield predictable results. In this case, those predictable results would be that the wheel set of Shiba would reduce vibration transmitted from the front tires to the front wheels, thus increasing handling performance.

c. The Applicant further argues that "optimizing to minimize under-steer in a front-wheel drive vehicle would, most likely, result in an optimal rigidity difference that is different than that defined in Claim 17 because the objective of the device of Claim 17 is to improve vibration convergence of the front wheel in a rear-wheel drive vehicle". The Applicant argues that since Shiba and the claimed invention

are drawn to different purposes (i.e. minimizing under-steer vs. improving vibration convergence, respectively) would result in different optimal rigidity between the front and rear wheels of the respective sets, and that Shiba's optimal rigidity would not fall within the range set forth in Claim 17.

However, it should be noted that the Shiba wheel set is capable of improving vibration convergence in addition to minimizing under-steer, given the fact that Shiba uses the same concept as the claimed invention, i.e. increasing the strength and weight (and thus rigidity) of the front wheels compared to the rear wheels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason R Bellinger/
Primary Examiner
Art Unit 3617